Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

1. (Currently Amended) A signal receiver comprising:

~~digitisation means for digitising a received signal and~~

a processor ~~demodulation means (80, 85, 90, 96) for extracting the~~ configured to extract information content of ~~the~~ a ~~digitised~~ digitized received signal~~;~~ and

a digitizer configured to digitize a received signal, wherein ~~the digitisation means~~ the digitizer comprises:

a filter ~~filtering means (30) for dividing~~ configured to divide the digitized received signal into a plurality of frequency sub-bands;

an ~~analogue~~ analog-to-digital converter ~~conversion means (41—45) for digitising~~ configured to digitize the signal in each sub-band; ~~,~~

a transformer ~~transform means (51–55) for transforming~~ configured to transform the ~~digitised~~ digitized received signal in each sub-band into the frequency domain~~;~~ and

a reconstructor ~~reconstruction means (51 – 55, 61 – 65, 70) for concatenating~~ configured to concatenate in the frequency domain the ~~digitised~~ digitized received signal in each sub-band thereby reconstructing the spectrum of the digitized received signal, wherein the reconstructor reconstructs the spectrum of the digitized received signal at a frequency lower than the frequency of the spectrum of the digitized received signal prior to being divided into sub-bands.

2. – 3. (Cancelled)

4. (Currently Amended) A receiver as ~~claimed~~ in claim [[3,]] 1, wherein the analog~~ue~~-to-digital converter ~~conversion means (41 – 45) comprises means for sampling~~ samples the received signal in a plurality of the sub-bands at a common sample rate.

5. (Currently Amended) A receiver as ~~claimed~~ in claim [[3,]] 1, wherein the analog~~ue~~-to-digital converter ~~conversion means (41 – 45) comprises means for sampling~~ samples the received signal in a first sub-set of the sub-bands at a first sample rate and ~~for sampling~~ samples the received signal in a second sub-set of the sub-bands at a second sample rate, ~~and~~ wherein the

received signal in adjacent sub-bands is sampled at unequal sample rates.

6. (Currently Amended) A receiver as ~~claimed~~ in claim 4 ~~or 5~~, wherein the plurality of sub-bands having a common sample rate have a common bandwidth.

7. (Currently Amended) A receiver as ~~claimed~~ in ~~any one of claims 1 to 6,~~ claim 1, wherein the analog~~ue~~-to-digital converter ~~conversion means comprises means 41 for~~ ~~digitising~~ ~~digitises~~ digitizes a plurality of sub-bands sequentially.

8. (Currently Amended) A receiver as ~~claimed~~ in claim 7, wherein the ~~transform means comprises means (51) for~~ transformer ~~transforming~~ transforms the ~~digitised~~ digitized signal in a plurality of the sub-bands sequentially.

9. (Currently Amended) A receiver as ~~claimed~~ in ~~any one of claims 1 to 8,~~ claim 1, wherein the reconstructor selects ~~reconstruction means comprises means (51 - 55) for selecting~~ a replica spectrum of a sub-band signal and a re-inverter ~~means (51 - 55 or 61 - 65)~~ for re-inverting the replica spectrum if the replica spectrum is inverted.

10. (Currently Amended) A receiver as ~~claimed~~ in ~~any one of claims 1 to 9,~~ claim 1, wherein the processor multiplies ~~demodulation means comprises means (80) for multiplying~~ the reconstructed received signal by a reference signal in the frequency domain at non-uniformly spaced frequencies.

11. (Currently Amended) A receiver as ~~claimed~~ in ~~any one of claims 1 to 9,~~ claim 1, comprising a down-convertor ~~down-conversion means~~ for down-converting the received signal from a transmission frequency to a lower frequency prior to the ~~digitisation~~ digitization by the digitizer of ~~means for down-converting~~ the received signal ~~from a transmission frequency to a lower frequency~~.

12. (New) A signal receiver comprising:

a processor configured to extract information content of a digitized received signal; and

a digitizer configured to digitize a received signal, wherein the digitizer comprises:

a filter configured to divide the digitized received signal into a plurality of frequency sub-bands;

a transformer configured to transform the digitized received signal in each sub-band into a frequency domain;

a reconstructor configured to concatenate in the frequency domain the digitized received signal in each sub-band thereby reconstructing a spectrum of the digitized received signal; and

an analog-to-digital converter configured to digitize the signal in each sub-band, wherein the analog-to-digital converter comprises:

a sampler configured to sample the digitized received signal in the i^{th} sub-band at a sample rate f_{xi}, in a range

$$\frac{2 f_{u_i}}{r_i} \leq f_{x_i} \leq \frac{2 f_{l_i}}{r_i - 1},$$

where f_{u_i} is an upper frequency limit of the sub-band and f_{l_i} is a lower frequency limit of the ith sub-band, and r_i is an integer satisfying the inequality $1 \leq r_i \leq \text{int}\left\{\frac{f_{u_i}}{f_{u_i} - f_{l_i}}\right\}$.